Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CW#16H: Distance in the coordinate plane

Honors Geometry

SWBAT find the distance between two points on the coordinate plane.

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| 1. Point B is located at the origin. Point N is located at (4,3). What is the distance from point B to Point N?  http://s3.amazonaws.com/edcanvas-uploads/117591/local/1380306229/coordinate-plane1-1005x1024.png | |
| 2. What is the distance between (-2,6) and (2,-4)?  http://s3.amazonaws.com/edcanvas-uploads/117591/local/1380306229/coordinate-plane1-1005x1024.png | 3. What is the distance between (5,2) and (1,3)?  http://s3.amazonaws.com/edcanvas-uploads/117591/local/1380306229/coordinate-plane1-1005x1024.png |
| 4. How does the Pythagorean Theorem apply to finding distance in the coordinate plane? | |

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| 5. What is the distance between (-3,4) and (2,-4)?  http://s3.amazonaws.com/edcanvas-uploads/117591/local/1380306229/coordinate-plane1-1005x1024.png | 6. What is the distance between (-2, -3) and (4,0)?  http://s3.amazonaws.com/edcanvas-uploads/117591/local/1380306229/coordinate-plane1-1005x1024.png |
| 7. What is the distance between points P1 (4, 3) and P2 (1, 6) below? | 8. What is the distance between points P1 (-3, 3) and point P2 (6, 1) below? |

Challenge: ANSWER IN YOUR NOTEBOOK!

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| 9. What is the length of QR? What is the length of QP? ttp://s3.amazonaws.com/illustrativemathematics/images/000/001/736/max/recdtangle6_e669f589bd1f9807f7d3512fa2002542.jpg?1356391981 | 10. Point T is located at (a,4) and Point J is located at (2,13). The two points are 12 units apart. What is the value of a? |
| 11. Right triangle MNP is plotted in the (x,y) coordinate plane. Point M is located at (d,c), Point N is located at (1,1) and Point P (1,c).  (a)What information do you need to find the value of c?  (b) What information do you need to find the values of d? |
| 12. What is the distance between (-7,5) and (3,-5)? |